

L Number	Hits	Search Text	DB	Time stamp
1	1408	((lignite or humic) and (oxidizing or oxidized or oxidize or oxidation) and (ammonium or ammonia or ammoniacal)) and fertilizer	USPAT; US-PGPUB	2003/02/04 15:28
2	232	((lignite or humic) and (oxidizing or oxidized or oxidize or oxidation) and (ammonium or ammonia or ammoniacal)) and fertilizer	USPAT; US-PGPUB	2003/02/04 15:26
3	2843	((lignin or brown adj coal) and (oxidizing or oxidized or oxidize or oxidation) and (ammonium or ammonia or ammoniacal)) and fertilizer	USPAT; US-PGPUB	2003/02/04 15:27
4	894	((lignin or brown adj coal) and (oxidizing or oxidized or oxidize or oxidation) and (ammonium or ammonia or ammoniacal)) and fertilizer	USPAT; US-PGPUB	2003/02/04 15:27
5	333	((lignite or humic or lignin or humate or brown adj coal) same (ammonium or ammonia or ammoniacal) and (oxidizing or oxidized or oxidize or oxidation) and (ammonium or ammonia or ammoniacal) and fertilizer	USPAT; US-PGPUB	2003/02/04 16:10
6	45	((lignite or humic or lignin or humate or brown adj coal) same (ammonium or ammonia or ammoniacal) and (oxidizing or oxidized or oxidize or oxidation) and (ammonium or ammonia or ammoniacal) and fertilizer) and 71/\$.ccls.	USPAT; US-PGPUB	2003/02/04 16:00
7	194	((lignite or humic or lignin or humate or brown adj coal) same (ammonium or ammonia or ammoniacal) and (oxidizing or oxidized or oxidize or oxidation) and (ammonium or ammonia or ammoniacal) and fertilizer) and pH	USPAT; US-PGPUB	2003/02/04 15:29
8	39	((lignite or humic or lignin or humate or brown adj coal) same (ammonium or ammonia or ammoniacal) and (oxidizing or oxidized or oxidize or oxidation) and (ammonium or ammonia or ammoniacal) and fertilizer) and pH) and 71/\$.ccls.	USPAT; US-PGPUB	2003/02/04 15:59
9	3	("4440560" "4588431" "4698090").PN.	USPAT	2003/02/04 15:55
10	6	4698090.URPN.	USPAT	2003/02/04 15:55
11	3	5698001.URPN.	USPAT	2003/02/04 15:55
12	6	("0290829" "3669898" "4575391" "5698001" "5772721" "5797976").PN.	USPAT	2003/02/04 15:55
14	11	5797976.URPN.	USPAT	2003/02/04 15:56
15	10	("2756134" "3353949" "3640698" "3753722" "3846290" "4033745" "4119429" "4652294" "4952229" "5549729").PN.	USPAT	2003/02/04 15:56
16	2	("4002457" "5443613").PN.	USPAT	2003/02/04 15:58
17	4	4002457.uref.	USPAT; US-PGPUB	2003/02/04 15:59
18	10	((lignite or humic or lignin or humate or brown adj coal) same (ammonium or ammonia or ammoniacal) and (oxidizing or oxidized or oxidize or oxidation) and (ammonium or ammonia or ammoniacal) and fertilizer) and carbon same nitrogen same ratio	USPAT; US-PGPUB	2003/02/04 16:04
19	90	((lignin or brown adj coal) and (oxidizing or oxidized or oxidize or oxidation) and (ammonium or ammonia or ammoniacal)) and fertilizer) and carbon same nitrogen same ratio	USPAT; US-PGPUB	2003/02/04 16:04

20	81	(((((lignin or brown adj coal) and (oxidizing or oxidized or oxidize or oxidation) and (ammonium or ammonia or ammoniacal)) and fertilizer) and carbon same nitrogen same ratio) not ((lignite or humic or lignin or humate or brown adj coal) same (ammonium or ammonia or ammoniacal) and (oxidizing or oxidized or oxidize or oxidation) and (ammonium or ammonia or ammoniacal) and fertilizer) and carbon same nitrogen same ratio)	USPAT; US-PGPUB	2003/02/04 16:05
21	61	(lignite or humic or lignin or humate or brown adj coal) same (ammonium or ammonia or ammoniacal) and (oxidizing or oxidized or oxidize or oxidation) and (ammonium or ammonia or ammoniacal) and fertilizer	USOCR	2003/02/04 16:18
22	25	((lignite or humic or lignin or humate or brown adj coal) same (ammonium or ammonia or ammoniacal) and (oxidizing or oxidized or oxidize or oxidation) and (ammonium or ammonia or ammoniacal) and fertilizer) and 71/.ccls.	USOCR	2003/02/04 16:11
23	25	(lignite or humic or lignin or humate or brown adj coal) same (ammonium or ammonia or ammoniacal) and (oxidizing or oxidized or oxidize or oxidation) and (ammonium or ammonia or ammoniacal) and fertilizer	EPO; JPO; DERWENT	2003/02/04 16:19

DERWENT-ACC-NO: 1974-82880V
DERWENT-WEEK: 197448
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TITLE: Slow-release nitrogenous fertilizers prodn - by
treating low-value coal
with solvents, oxidizing, adding e.g. ammonia, and drying

PATENT-ASSIGNEE: SCI & APPL PROCESS[SCAPN], SCI & APPLIED
PROCESSES[SCIEN]

PRIORITY-DATA: 1973DE-2320678 (April 24, 1973)

PATENT-FAMILY:

PUB-NO	PAGES	MAIN-IPC	PUB-DATE	LANGUAGE
DE 2320678 A	000	N/A	November 21, 1974	N/A
DE 2320678 C	000	N/A	October 21, 1982	N/A
JP 49131855 A	000	N/A	December 18, 1974	N/A
US 4013440 A	000	N/A	March 22, 1977	N/A

INT-CL (IPC): C05C009/00; C05C011/00 ; C05F011/02 ;
C05G001/00

ABSTRACTED-PUB-NO: DE 2320678A

BASIC-ABSTRACT: Nitrogenous fertilizers are produced by (a) treating a low-value coal (pref. lignite) with a suitable hydrotropic solvent (pref. aqueous urea), thereby dissolving at least a substantial amt. of the humus content of the coal, (b) subjecting the soln. to oxidising conditions (pref. with HNO₃ or H₂O₂), (c) adding ammonia or a similar nitrogen-yielding cpd. (pref. ammonia) to the oxidised soln, and (d) drying). The fertilizers have the following props: (a) their nitrogen content is released slowly; (b) they contain essential plant nutrients such as P and Fe in readily available form;

(c) they improve soil heat- and water-retention; and (d)
their buffering props
prevent rapid changes in soil pH.

TITLE-TERMS:

SLOW RELEASE NITROGENOUS FERTILISER PRODUCE TREAT LOW VALUE
COAL SOLVENT ADD
AMMONIA DRY

DERWENT-CLASS: C04

CPI-CODES: C04-A07D; C05-C01; C10-A13B; C12-M10; C12-N09;
C12-N10;

CHEMICAL-CODES:

Chemical Indexing M1 *01*

Fragmentation Code

V400 V404 N050 N160 N100 M431 P113 P111 P112 M720
M782 R003 R051 R052 M423 M902

Chemical Indexing M2 *02*

Fragmentation Code

C800 C730 C500 N100 M431 P113 P111 P112 M720 M782
R003 R051 R052 M411 M902

Chemical Indexing M2 *03*

Fragmentation Code

K0 M320 M280 L431 L432 M620 N100 M431 P113 P111
P112 M510 M520 M530 M540 M720 M782 R003 R051 R052
M416 M902

UNLINKED-RING-INDEX-NUMBERS: 70104

DERWENT-ACC-NO: 1973-16974U
DERWENT-WEEK: 197312
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TITLE: Granulating nitrohumic acid salts - useful as soil conditioners and fertilizers

PATENT-ASSIGNEE: NIPPON KASEI KOGYO KK[NIKS]

PRIORITY-DATA: 1967JP-0041570 (June 30, 1967)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE
PAGES	MAIN-IPC	
JP 73008601 B		N/A
000	N/A	

ABSTRACTED-PUB-NO: JP 73008601B

BASIC-ABSTRACT: Process comprises decomposing lignite or brown coal with dilute nitric acid by oxidation; neutralising the produced nitrohumic acid-contg. substance or purified nitrohumic acid with an alkali metal cpd., ammonium or an ammonium cpd. which produces an alkali metal salt or ammonium salt of nitrohumic acid by reacting with nitrohumic acid; adjusting the water content of the alkali salt of the acid to 30-40% and granulating it by adding water in a granulating machine and then drying it. The alkali metal cpd. is e.g. NaOH, KOH, NaHCO₃, Na₂CO₃, K₂CO₃, etc. and the ammonia or ammonium cpd. is e.g. NH₄OH, NH₄CO₃, etc.

TITLE-TERMS:

GRANULE NITROHUMIC ACID SALT USEFUL SOIL CONDITION FERTILISER

DERWENT-CLASS: C04

CPI-CODES: C04-A07D; C12-M11; C12-N08; C12-N10;

CHEMICAL-CODES:

Chemical Indexing M1 *01*

Fragmentation Code

V400 V404 M630 N100 P113 P124 P126 P127 M720 R031

R032 R033 R034 R036 R038 R043 M423 M902

DERWENT-ACC-NO: 1988-220535
DERWENT-WEEK: 198832
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TITLE: Organic fertiliser prodn. - from lignite or brown coal by oxidn. with nitric acid and neutralisation

INVENTOR: NONOMURA, T

PATENT-ASSIGNEE: FERTILIZ MITSUI SA[FERTN]

PRIORITY-DATA: 1988BR-0002171 (May 4, 1988)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE
PAGES	MAIN-IPC	
BR 8802171 A	July 5, 1988	N/A
000	N/A	

APPLICATION-DATA:

PUB-NO	APPL-DESCRIPTOR	APPL-NO
APPL-DATE		
BR 8802171A	N/A	1988BR-0002171
May 4, 1988		

INT-CL (IPC): C05F011/02

ABSTRACTED-PUB-NO: BR 8802171A

BASIC-ABSTRACT: The fertiliser, consisting of nitro-humic acid, is made by oxidn. of lignite or brown coal with nitric acid by the semi-wet method, followed by neutralisation with magnesium hydroxide, calcium hydroxide, calcined serpentinite powder or ammonia.

TITLE-TERMS:

ORGANIC FERTILISER PRODUCE LIGNITE BROWN COAL OXIDATION
NITRIC ACID NEUTRALISE

DERWENT-CLASS: C04

CPI-CODES: C04-A07D1; C12-N10;

SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: C1988-098437

DERWENT-ACC-NO: 1975-22900W
DERWENT-WEEK: 197514
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TITLE: Humic acid fertilisers - prepd. by oxidn. of
organic material and
treatment with alkali and phosphate

PATENT-ASSIGNEE: Z RODRIGUES CORREIA[CORRI]

PRIORITY-DATA: 1973FR-0023415 (June 25, 1973)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE
PAGES	MAIN-IPC	
FR 2234245 A	February 21, 1975	N/A
000	N/A	

INT-CL (IPC): C05F011/02

ABSTRACTED-PUB-NO: FR 2234245A

BASIC-ABSTRACT: Fertilizers are prepd. by treatment of a
humic acid soln.
prepd. from peat, lignite or plant waste, with an alkali
soln contg. metal
salts, giving humo-metallic complexes, nitrogen as ammonium
humate, and
phosphorus complexes, nitrogen fertilisers have the
advantages of both N. P. K.
and organic fertilisers, without their disadvantages, they
are cheap to
produce, and it is possible to extract rare metals
including uranium, from the
liquor resulting from acid treatment of lignine to produce
the humic acid.

TITLE-TERMS:

HUMIC ACID FERTILISER PREPARATION OXIDATION ORGANIC
MATERIAL TREAT ALKALI
PHOSPHATE

DERWENT-CLASS: C04

CPI-CODES: C04-A07D; C12-N10;

CHEMICAL-CODES:

Chemical Indexing M1 *01*

Fragmentation Code

V400 V404 N050 N000 P113 M720 M423 M902

DERWENT-ACC-NO: 1974-29165V
DERWENT-WEEK: 197416
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TITLE: Organic nitrogen fertilizers - contg. immediately available and prolonged release nitrogen, from e.g. lignin material

PATENT-ASSIGNEE: CHEMISCHE FABRIK KALK GM[KALK]

PRIORITY-DATA: 1972DE-2247938 (September 29, 1972)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE
PAGES	MAIN-IPC	
DE 2247938 A	April 11, 1974	N/A
000	N/A	

INT-CL (IPC): C05F011/02

ABSTRACTED-PUB-NO: DE 2247938A

BASIC-ABSTRACT: Fertilisers contg. >15% N are produced by treatment of org. substances (esp. humus- and/or lignin-contg. material of vegetable origin) at elevated temp. and press. in a process in which an aq. suspension of the org. substances, contg. 70-95% water, is treated with ammonia, heated to the reaction temp. in a press. vessel, brought to the reaction press. by compression with pure O₂, and reacted with further pure O₂ until no further absorption of O₂ occurs, then the end prod. is recovered by venting, evapg. and drying. The end-prod. can be used by itself as a nitrogenous fertiliser, or may be employed as a nitrogenous component of compound fertilisers. Part of its N content is ionically bound and is immediately released to plants, while the remainder of its N content is released over a prolonged period.

TITLE-TERMS:

ORGANIC NITROGEN FERTILISER CONTAIN IMMEDIATE AVAILABLE
PROLONG RELEASE
NITROGEN LIGNIN MATERIAL

DERWENT-CLASS: C04

CPI-CODES: C04-A07D; C04-C03; C05-C01; C12-N10;

CHEMICAL-CODES:

Chemical Indexing M1 *01*

Fragmentation Code

V400 V741 V404 M431 P113 M782 R003 M423 M902

Chemical Indexing M2 *02*

Fragmentation Code

C800 C730 C500 M431 P111 P112 M782 R003 M411 M902

DERWENT-ACC-NO: 1967-04211G
DERWENT-WEEK: 196800
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TITLE: Humus fertilizers

PATENT-ASSIGNEE: PETRIK GK[RUSS]

PRIORITY-DATA: 1963SU-0827427 (March 25, 1963)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE
PAGES	MAIN-IPC	
SU 169129 A		N/A
000	N/A	

ABSTRACTED-PUB-NO: SU 169129A

BASIC-ABSTRACT: Humus fertilizers are normally prepd. by treating oxidized coal or peat with gaseous ammonia, or with ammonia water without any withdrawal of the heat of reaction. The drawback is that the product is only a low-concentration humus fertilizer contng. only 0.15-0.25% of water-soluble humic acids. The recommended method involves the prodn. of the fertilizer, at not higher than 40 deg.C, with intensive removal of the heat of reaction. This ensures a product which is highly concentrated and contains 20-40% of humic acids in relation to the content of ammonia-soluble humic acids in the initial material.

Oxidized coal or peat having a particle size not greater than 3 mm. and contng. 40% of humic acids, is fed into a rotating horizontal tubular mixer which is cooled on the outside with water. The ammonia is fed in counter-flow to the movement of the carbonaceous matter.

TITLE-TERMS:

HUMUS FERTILISER

DERWENT-CLASS: C00

CPI-CODES: C04-A07D; C05-C01;

CHEMICAL-CODES:

Chemical Indexing M0 *01*

Fragmentation Code

V400 V404 C500 A960 A970 C710 M630 N000 N100 M431

M771 R003 M423 M411 M900

Chemical Indexing M0 *02*

Fragmentation Code

V400 V404 C500 A960 A970 C710 M630 N000 N100 M431

M771 R003 M423 M411 M900

X

DERWENT-ACC-NO: 1967-06709H
DERWENT-WEEK: 196800
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TITLE: Humic fertilisers produced by treating non-oxidised

PATENT-ASSIGNEE: NA ZHUKOV [RUSS]

PRIORITY-DATA: 1966SU-1064956 (March 29, 1966)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE
PAGES	MAIN-IPC	
SU 220278 A		N/A
000	N/A	

ABSTRACTED-PUB-NO: SU 220278A

BASIC-ABSTRACT: Humic fertilisers are produced by treating non-oxidised brown coal with an alkali solution, then subjecting it to oxidation with air at 100 deg.C, and finally treating it with ammonia.

A non-oxidised brown coal was treated with a 2.5% NaOH soln., then the soln. was separated and the coal was oxidised with air at 100 deg.C for 12 hrs. Finally, it was treated with 1% NH₄OH soln.

TITLE-TERMS:

HUMIC FERTILISER PRODUCE TREAT NON OXIDATION

DERWENT-CLASS: C00

CPI-CODES: C04-A07D; C04-D02; C05-C01; C12-N10;

CHEMICAL-CODES:

Chemical Indexing M0 *01*

Fragmentation Code

V400 V793 V797 V404 C500 M431 P113 R003 M900